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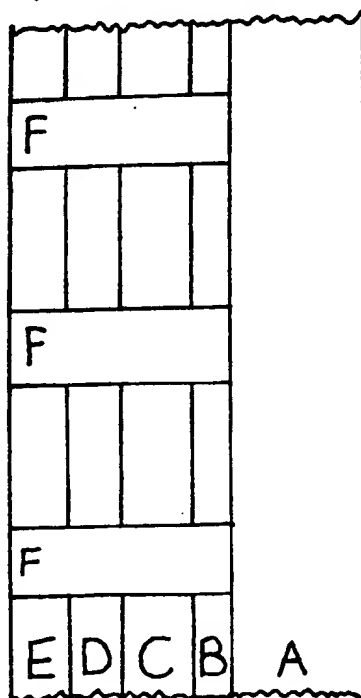
(56) Documents cited
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UK CL (Edition K) G5C CFF CGAT CGAX
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Online databases: WPI

(54) Transparent material with perforations

(57) A transparent material C for use in advertising, supports one or more printed layers D and E, and is attached to a substrate A which may be a window or other transparent material. To improve the visibility of the printed layers, the material C is provided with a plurality of perforations F. These perforations may be of circular, square or other shape, and the perforations may be effected before or after the addition of printed layers. The material C and printed layers, may be attached to the substrate A by means of a self-cling layer B. Material C may be a vinyl polymer.

FIGURE 1



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FIGURE 1

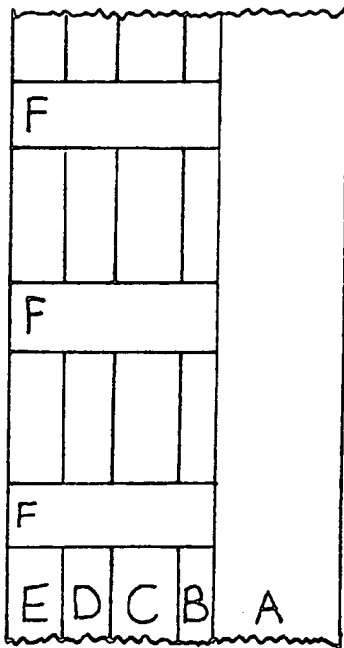


FIGURE 2

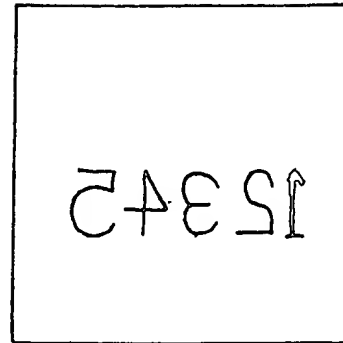


FIGURE 4

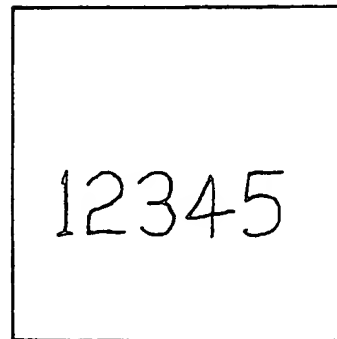


FIGURE 3

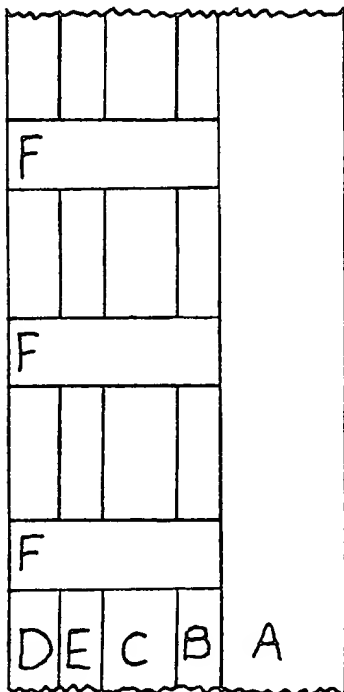


FIGURE 5

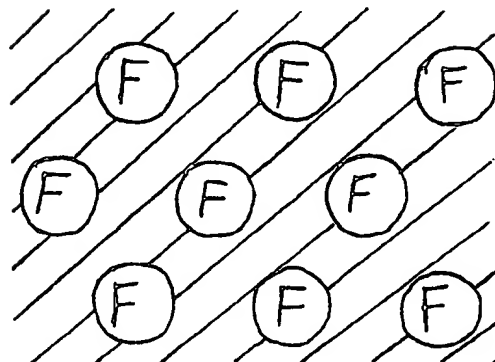


FIGURE 6

F						
F						
F						
G	E	D	C	B	A	

TRANSPARENT MATERIAL FOR PRINTING, WITH PERFORATIONS.

This invention relates to a transparent material for printing, with perforations.

Transparent materials such as clear vinyl are well known and used extensively by many industries for printing. It is adhered to many surfaces including windows and the like transparent medium, often for advertising purposes, by means of a self-cling or a self-adhesive layer which is usually protected by a peel off backing paper or card prior to it being applied to the desired surface. The opposite side is used for the printed matter, which can be in reverse or normal print depending on which side the printed matter is required to be read from. If a transparent material such as clear vinyl has the printed matter in reverse print and the printed matter printed again over the top, the printed matter can be read from both sides. This is often seen on shop doors and windows for publicity purposes.

Clear vinyl or any similar transparent material used by the printing industry, printed on in any of the ways outlined will obstruct light and vision.

According to the present invention there is provided the facility for a transparent material to be used for printing, which offers the visibility of printed matter from either side allowing vision through from the other side without sight of the printed matter, and the ability for the printed matter and through vision to alternate with each other, the printed matter side facing the greater light source, be it natural

or artificial, being revealed; thus four surfaces are ultimately available, by means of printed layers and perforation, which can take place before or or after all the print layers have been applied, when fixed to either side of a window or the like transparent medium.

A specific embodiment of the invention will now be described by way of example with reference to the accompanying drawings in which:-

Figure 1 shows a cross-section of the transparent material with the print layers applied and perforations adhered to a window or the like transparent medium.

Figure 2 shows the reverse printed matter applied to the Fig. 1 example which would read '12345' when viewed from the right hand side of Fig. 1 example.

Figure 3 shows the printed matter and vision through have both been reversed from the example in Fig. 1 yet the transparent material is adhered to the same side of the window or the like transparent medium.

Figure 4 shows what is actually printed on the transparent material in the example Fig. 3.

Figure 5 shows a side view, grossly exaggerated, of the transparent material with perforations.

Figure 6 shows the three printed layers required to achieve the ability of the printed matter and through vision to alternate with each other, the side facing the greater light source being revealed.

Referring to the drawings the transparent material C, with the perforations F is adhered to either side of a window or the like transparent medium A by the self-cling or self-adhesive layer B which was protected by a peel off backing paper or card (not shown). It may be necessary to incorporate some protection in this layer from the sun's harmful rays. In order to achieve visibility of the printed matter from one side and allow vision through from the other side the transparent material needs two print layers and perforations. The invention is not restricted to the transparent material being perforated before the print layers are applied, but may be extended to perforation taking place after the completion of all the print layers. In some cases it may even prove advantageous to perforate after the completion of the print layers. The density of the perforations can be varied to allow differing degrees of vision for different applications and to suit a personal preference or particular requirement. The density envisaged ranges between 50 and 250 perforations per 25mm square, although the invention is not restricted to this range. The perforations are shown in Figure 5 as circular but they are not in fact restricted to being circular as the invention may be extended to the use of various shapes, for example they may be square, elliptical or any irregular form should the use of a shape other than circular be advantageous. For visibility of the printed matter with through vision allowed from the other side two print layers are applied. The two print layers are a printed matter layer(s) D in normal or reverse print as required and an all over single colour(s) print layer(s) E which would give the desired effect on vision as required providing that colour prevents vision of the printed matter layer(s) when viewed from the single colour side. It may be necessary to apply several layers of the same colour or even different colours in order to prevent vision of the printed matter layer(s). The colour used for the all over single

colour print layer(s) would make the window or the like transparent medium appear tinted in the colour(s) used when vision through it is practised. The reverse printed matter shown in Fig. 2 applied to the Fig. 1 example would allow the printed matter to be visible from the right hand side of the Fig. 1 example, vision being allowed through from the opposite side. The printed matter shown in Fig. 4 applied to the Fig. 3 example would allow the printed matter to be visible from the left hand side of the Fig. 3 example, vision being allowed through from the opposite side, because the all over single colour(s) print layer(s) has been applied first. Both examples given in Fig. 1 and Fig. 2 show the transparent material adhered to the same side of a window or the like transparent medium but it can be adhered to either side, and visibility of the printed matter can be from either side, by applying the printed layers in the appropriate order. It should be realised that the visibility of the printed matter on one side with vision through from the other side can only be achieved by the printed matter layer(s) facing towards the greater light source, be it artificial or natural. It follows that if the inside of a window or the like transparent medium is darker than the outside due to daylight, vision from the inside through the perforations to the outside is allowed, light can pass through the perforations from the outside to the inside and the printed matter layer(s) will be visible from the outside, so the printed matter layer(s) should be applied to face the outside. During the hours of darkness the inside of the window or the like transparent medium may be lighter than the outside due to artificial light(s), so the facilities of light passage, through vision and visibility of the printed matter would be reversed. The printed matter layer(s) should then be applied so that it faces inside. These characteristics can

however be overcome by making the darker side brighter than the other side by the use of artificial light such as spotlights directed at the side of the window or the like transparent medium where vision of the printed matter is required. If this is on the inside of a shop window the daylight on the outside of the window can be reduced by lowering the shop's outside canopy if fitted, as well as using spotlights inside the shop. Figure 6 shows a further printed matter layer(s) G which can be the same or different to the printed matter layer(s) D, the printed matter facing the greater light source being revealed with through vision allowed from the darker side. This offers the ability for the printed matter and through vision to alternate with each other, both naturally between day and night and under control with artificial light. In certain circumstances the ability to alternate would be advantageous, by natural light in late-night, take-away food shops or laundrettes, and artificially for advertising purposes which would allow the printed matter to appear and disappear for added impact. The ability of the printed matter and through vision to alternate with each other would involve 3 print layers as shown in Fig. 6, these are a reverse printed matter layer(s), over which is applied an all over single colour(s) print layer(s) and then a further printed matter layer(s). The individual site for application and the individual requirements would determine which side of the window or the like transparent medium would be used for adhesion and which side would show the printed matter allowing through vision from the opposite side, be it constant or alternating. The 4 surfaces that are ultimately available with the alternating printed matter layers are through vision from both sides and visibility of the printed matter from both sides.

CLAIMS

1 A transparent material for printing, with perforations providing the facility of visibility of printed matter from either side allowing through vision from the other side without sight of the printed matter, and the ability for the printed matter and through vision to alternate with each other, the printed matter side facing the greater light source, be it natural or artificial, being revealed; thus four surfaces are ultimately available, by means of printed layers and perforation, which can take place before or after all the print layers have been applied, when adhered to either side of a window or the like transparent medium.

2 A transparent material for printing, with perforations as claimed in Claim 1 wherein means is provided to adhere the material to a window or the like transparent medium by a self-cling or self-adhesive layer which may be protected by a peel-off backing paper or card.

3 A transparent material for printing, with perforations as claimed in Claim 1 or Claim 2, wherein the perforations may take the shape of a regular form such as circular or square, or even an irregular form.

4 A transparent material for printing, with perforations as claimed in any preceding claim wherein the density of the perforations may or may not be uniform.

5 A transparent material for printing, with perforations as claimed in Claim 4, wherein the material may have an undefined number of perforations in its width and length of a uniform density.

6 A transparent material for printing, with perforations substantially as described herein with reference to Figures 1-6 of the accompanying drawings.